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AMENDMENT UNDER 37 C.F.R. 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP 3627  
PATENT  
ATTORNEY DOCKET NO. 2000P7518 US (1009-026)  
SERIAL NO. 09/528,693

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. 09/528,693  
Applicant James Wright et al.  
Filed 20 March 2000  
Title METHOD, SYSTEM AND APPARATUS FOR PROVIDING  
PRODUCT INFORMATION OVER THE INTERNET  
Art Unit 3627  
Examiner Andrew J. Fischer

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 C.F.R. § 1.132**

Sir:

I, Dr. Ronald D. Williams, a citizen of the United States, whose full post office address is 1715 Hearthglow Lane, Charlottesville, VA 22901 declare as follows under penalty of perjury.

1. I hold a Ph.D. degree in Electrical Engineering from the Massachusetts Institute of Technology awarded in 1984.
2. I hold a M.S. degree in Electrical Engineering from the University of Virginia awarded in 1978.
3. I hold a B.S. degree in Electrical Engineering from the University of Virginia awarded in 1977.

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4. I am currently an associate professor of Electrical & Computer Engineering at the University of Virginia.
5. Since 1984, I have worked continually in the field of electrical engineering with particular emphasis in embedded computing with applications in control and signal processing.
6. During my career, I have been granted five U.S. patents for my own inventions in the field of embedded computing.
7. I have reviewed Application Serial No. 09/528,693.
8. I have reviewed U.S. Patents Nos. 5,804,803 (Cragun '803); 5,940,595 (Reber '595); 6,109,526 (Ohanian '526); and 5,978,773 (Hudetz '773).
9. Among the devices with which I was familiar prior to 03/20/2000, the filing date of Application Serial No. 09/528,693, were devices of the type recited in Cragun '803, Reber '595, Ohanian '526, and Hudetz '773.
10. Regarding Application Serial No. 09/528,693, I have reviewed the U.S. Patent Office Action dated 30 July 2003 ("Office Action 1") and the U.S. Patent Office Action dated 18 May 2004 ("Office Action 2").
11. Office Action 1 contains, and Office Action 2 implicitly references, the following statement: "the Examiner hereby adopts the following definitions as the broadest reasonable interpretation in all his claim interpretations ... b. Controller 'A device on

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which other devices rely for access to a computer subsystem' ... e. Programmable logic device 'A logic chip that is programmed by the customer rather than by the manufacturer'. It is the Examiner [sic] factual determination that a programmable logic controller is a PLD."

12. The Office Action provides no reason, factual or otherwise, for why "the Examiner" equated a "programmable logic controller" with a "PLD".
13. The Office Action provides no showing that **one skilled in the art** would equate a "programmable logic controller" with a "PLD".
14. From the view of one skilled in the electrical engineering art as of 20 March 2000, the filing date of Application Serial No. 09/528,693, the definition of a "programmable logic controller" adopted in Official Action 1, and implicitly referenced by Office Action 2, is factually incorrect.
15. Specifically, one skilled in the art would not interpret the term "programmable logic controller (PLC)" to mean "[a] logic chip that is programmed by the customer rather than by the manufacturer".
16. Instead, one skilled in the art would interpret the term "programmable logic controller (PLC)" to mean a device that follows programmed instructions to provide automated monitoring and/or control functions over a machine and/or process by evaluating a set of inputs. A PLC can be used, for example, to automate complex functions and/or

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control an industrial process, for example, in machining, packaging, materials handling, and/or other applications.

17. Alternatively, one skilled in the art would interpret the term “programmable logic controller (PLC)” to mean “a digitally operating electronic apparatus which uses a programmable memory for the internal storage of instructions for implementing specific functions such as logic, sequencing, timing, counting and arithmetic to control through digital or analog input/output modules, various types of machines or processes”.
18. For evidence supporting these definitions, one skilled in the art would have looked to a standard setting body such as the National Electrical Manufacturers Association (NEMA). NEMA defines a programmable logic controller as “a digitally operating electronic apparatus which uses a programmable memory for the internal storage of instructions for implementing specific functions such as logic, sequencing, timing, counting and arithmetic to control through digital or analog input/output modules, various types of machines or processes”. See NEMA Standard ICS 3-1978, Part ICS3-304(5) (relevant pages attached hereto).
19. Office Action 2 contains the following statement: “[a]lthough the Williams Declaration states the Examiner’s definition is incorrect, the Williams Declaration fails to state why the Examiner’s definitions are not proper in this context. Moreover,

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not only does the Williams Declaration fail to provide objective evidence as to why the Examiner's definitions are improper, the Williams Declaration fails to provide evidence as to why Dr. Williams definitions should be controlling".

20. One skilled in the art would find that the definition provided for "programmable logic controller" in Office Action 1 is improper because it does not reflect the meaning of "programmable logic controller" as understood by one skilled in the art.
21. The facts of paragraphs 1 through 6 reasonably indicate that I am skilled in the art pertaining to Application 09/528,693 and have been since at least 1984.
22. I have reviewed U.S. Patent Office Action 2 in Application Serial No. 09/528,693, which contains the following statement: "Reber '595 discloses ... a PLC""
23. That statement is factually incorrect, in view of the state of the electrical engineering art as of 03/20/2000, the filing date of Application Serial No. 09/528,693.
24. Based on the definitions of a programmable logic controller provided in either paragraph 16 or 17, one skilled in the art would not find that "Reber '595 discloses ... a PLC" whatsoever.
25. I have reviewed U.S. Patent Office Action 2 in Application Serial No. 09/528,693, which contains the following statement: "Ohanian directly teaches the use of RF tags (a PLC) in replace of bar codes".
26. That statement is factually incorrect, in view of the state of the electrical engineering

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art as of 03/20/2000, the filing date of Application Serial No. 09/528,693.

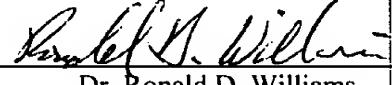
27. Based on the definitions of a programmable logic controller provided in either paragraph 16 or 17, one skilled in the art would not equate Ohanian's "RF tags" to a "PLC".
28. Accordingly, one skilled in the art would not find that "Ohanian directly teaches the use of RF tags (a PLC) in replace of bar codes".
29. I have reviewed U.S. Patent Office Action 2 in Application Serial No. 09/528,693, which contains the following statement: "Hudz directly or inherently discloses all the claimed features", implying that Hudetz discloses a "programmable logic controller".
30. That statement and implication is factually incorrect, in view of the state of the electrical engineering art as of 03/20/2000, the filing date of Application Serial No. 09/528,693.
31. Based on the definitions of a programmable logic controller provided in either paragraph 16 or 17, one skilled in the art would not find that "Hudz directly or inherently discloses all the claimed features" or a "programmable logic controller" whatsoever.

I further declare that all statements made herein of my own knowledge are true and that these statements were made with the knowledge that willful false statements and the like so made are

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punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issuing thereon.

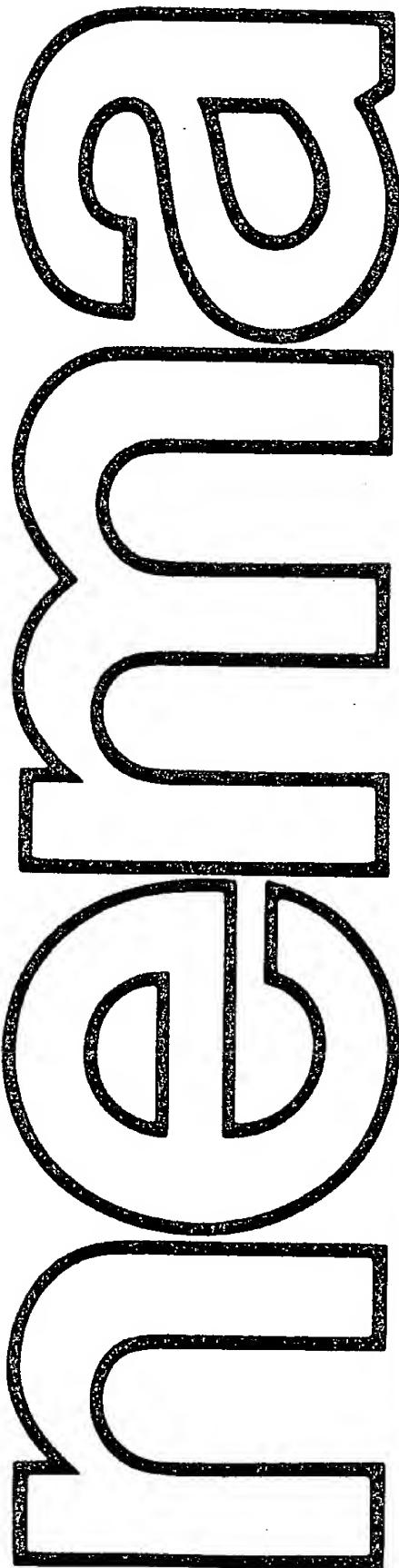
Signed this 4<sup>th</sup> day of August 2004



Dr. Ronald D. Williams

Approved  
by ANSI  
May 24, 1979

ANSI/NEMA STANDARDS PUBLICATION/NO. ICS 3-1978



# industrial systems



NEMA standards represent the result of many years of research, investigation and experience by the members of NEMA, its predecessors, its Sections and Committees. They have been developed through continuing consultation among manufacturers, users and national engineering societies and have resulted in improved serviceability of electrical products with economies to manufacturers and users.

One of the primary purposes of this Standards Publication is to encourage the production of reliable control equipment which, in itself, functions in accordance with these accepted standards. Some portions of these standards, such as electrical spacings and interrupting ratings, have a direct bearing on safety; almost all of the items in this publication, when applied properly, contribute to safety in one way or another.

Properly constructed industrial control equipment is, however, only one factor in minimizing the hazards which may be associated with the use of electricity. The reduction of hazard involves the joint efforts of the various equipment manufacturers, the system designer, the installer and the user. Information is provided herein to assist users and others in the proper selection of control equipment.

The industrial control manufacturer has limited or no control over the following factors which are vital to a safe installation:

1. Environmental conditions.
2. System design.
3. Equipment selection and application.
4. Installation.
5. Operating practices.
6. Maintenance.

This publication is not intended to instruct the user of control equipment with regard to these factors except insofar as suitable equipment to meet needs can be recognized in this publication and some application guidance is given.

This Standards Publication is necessarily confined to defining the construction requirements for industrial control equipment and to providing recommendations for proper selection for use under normal or certain specific conditions. Since any piece of industrial control equipment can be installed, operated and maintained in such a manner that hazardous conditions may result, conformance with this publication does not by itself assure a safe installation. When, however, equipment conforming with these standards is properly selected and is installed in accordance with the *National Electrical Code* and properly maintained, the hazards to persons and property will be reduced.

NEMA Standards Publications are subject to periodic review. They are revised frequently to meet changing conditions and technical progress. Users should secure the latest editions. See the postal return card in the front of the Standards Publication for the proper procedure to obtain revision service for your copy of the publication.

Proposed or recommended revisions to this Standards Publication should be submitted to:

Manager, Engineering Department  
National Electrical Manufacturers Association  
2101 L Street, N.W.  
Washington, D.C. 20037

## Part ICS 3-304

# PROGRAMMABLE CONTROLLERS

*Part ICS 3-304 provides information concerning the construction, programming, performance, test, installation, protection and safety of programmable controllers. The definitions and standards of Part ICS 3-100 and NEMA Standards Publication No. ICS 1 apply to this part unless otherwise specified.*

### DEFINITIONS

#### ICS 3-304.01 DEFINITIONS

##### Baud (For Binary Code Transmission)

A measure of the speed at which information is transmitted, expressed in bits per second.

NEMA Standard I-28-1976.

##### Current Sink

A device which receives current.

NEMA Standard I-28-1976.

##### Current Source

A device which supplies current.

NEMA Standard I-28-1976.

##### Hardware

The physical, tangible and permanent components of a programmable controller:

NEMA Standard I-28-1976.

##### Instruction

A statement that specifies an operation and the values or locations of its operands.

NEMA Standard I-28-1976.

##### Programmable Controller

A digitally operating electronic apparatus which uses a programmable memory for the internal storage of instructions for implementing specific functions such as logic, sequencing, timing, counting and arithmetic to control, through digital or analog input/output modules, various types of machines or processes. A digital computer which is used to perform the functions of a programmable controller is considered to be within this scope. Excluded are drum and similar mechanical-type sequencing controllers.

NEMA Standard I-28-1976.

##### Software

- (a) Operating, utility, assembly and other computer programs which are furnished with a programmable controller.
- (b) Documents, such as manuals, drawings, program listings and operating instructions.

NEMA Standard I-28-1976.